IN THE CLAIMS

Please amend the claims as follows.

1. (Previously Presented) An integrated circuit package comprising:

a substrate;

a die; and

a material having a Young's modulus of between about .1 megapascals and less than 3 megapascals, at a solder reflow temperature, attaching the die to the substrate.

2. (Original) The integrated circuit package of claim 1, wherein the substrate comprises a ceramic.

3. (Original) The integrated circuit package of claim 1, wherein the die comprises one or more memory circuits.

4. (Original) The integrated circuit package of claim 1, wherein the die comprises one or more processor circuits.

5. (Original) The integrated circuit package of claim 1, wherein the die comprises one or more logic circuits.

6. (Original) The integrated circuit package of claim 1 wherein the die comprises one or more application specific integrated circuits.

7. (Original) The integrated circuit package of claim 1, wherein the material comprises a poly epoxide formed from one epoxide.

8. (Original) The integrated circuit package of claim 1, wherein the material comprises a poly epoxide formed from two or more epoxides.

9. (Original) The integrated circuit package of claim 1, wherein the material comprises a polyacrylate.

10. (Original) The integrated circuit package of claim 1, wherein the material comprises a polyolefin.

11. (Original) The integrated circuit package of claim 1, wherein the material comprises a polyimide.

12. (Original) The integrated circuit package of claim 1, wherein the material comprises a mixture of at least two of a poly epoxide, polyacrylate, polyimide, and polyolefin.

13. (Original) The integrated circuit package of claim 1, wherein the material comprises a copolymer of at least two of a poly epoxide, a polyacrylate, polyimide, and polyolefin.

14. (Original) The integrated circuit package of claim 1, wherein the material comprises a mixture of a poly epoxide and a polyimide.

15. (Original) The integrated circuit package of claim 1, wherein the material comprises a copolymer of a poly epoxide and a polyimide.

16. (Original) The integrated circuit package of claim 1, wherein the material has a Shore A hardness of greater than about 70.

17. (Original) The integrated circuit package of claim 1, wherein the material has a Shore D hardness of greater than about 20.

18. (Previously Presented) An integrated circuit package comprising:

a substrate;

a die; and

a material having a coefficient of thermal expansion α_2 of less than about 400 (four-hundred) ppm/°C attaching the die to the substrate, wherein the material has a Young's modulus of between .1 megapascals and less than 3 megapascals, at a solder reflow temperature.

19. (Original) The integrated circuit package of claim 18, wherein the substrate comprises a single metal layer glass-epoxide.

20. (Original) The integrated circuit package of claim 18, wherein the die comprises one or more processor circuits.

21. (Original) The integrated circuit package of claim 18 wherein the die comprises one or more memory circuits.

22. (Original) The integrated circuit package of claim 18, wherein the die comprises one or more logic circuits.

23. (Original) The integrated circuit package of claim 18, wherein the die comprises one or more application specific integrated circuits.

24. (Original) The integrated circuit package of claim 18, wherein the material comprises a poly epoxide formed from one epoxide.

25. (Original) The integrated circuit package of claim 18, wherein the material comprises a poly epoxide formed from two or more epoxides.

26. (Original) The integrated circuit package of claim 18, wherein the material comprises a polyacrylate.

27. (Original) The integrated circuit package of claim 18, wherein the material comprises a polyolefin.

28. (Original) The integrated circuit package of claim 18, wherein the material comprises a polyimide.

29. (Original) The integrated circuit package of claim 18, wherein the material comprises a mixture of at least two of a poly epoxide, polyacrylate, polyimide, and polyolefin.

30. (Original) The integrated circuit package of claim 18, wherein the material comprises a copolymer of at least two of a poly epoxide, a polyacrylate, polyimide, and polyolefin.

31. (Original) The integrated circuit package of claim 18, wherein the material comprises a mixture of a poly epoxide and a polyimide.

32. (Original) The integrated circuit package of claim 18, wherein the material comprises a copolymer of a poly epoxide and a polyimide.

33. (Original) The integrated circuit package of claim 18, wherein the material has a Shore A hardness of greater than about 70.

34. (Original) The integrated circuit package of claim 18, wherein the material has a Shore D hardness of greater than about 20.

35. (Original) An integrated circuit package comprising:

a substrate;

a die; and

a rigid die attach material attaching the die to the substrate.

36. (Original) The integrated circuit package of claim 35, wherein the substrate comprises a printed circuit board.

37. (Original) The integrated circuit package of claim 35, wherein the die comprises a communication circuit.

38. (Original) The integrated circuit package of claim 35, wherein the die comprises one or more memory circuits.

39. (Original) The integrated circuit package of claim 35, wherein the die comprises one or more processor circuits.

40. (Original) The integrated circuit package of claim 35, wherein the die comprises one or more logic circuits.

41. (Original) The integrated circuit package of claim 35, wherein the die comprises one or more application specific integrated circuits.

42. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a poly epoxide formed from one epoxide.

43. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a poly epoxide formed from two or more epoxides.

44. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a polyacrylate.

45. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a polyolefin.

46. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a polyimide.

47. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a mixture of at least two of a poly epoxide, polyacrylate, polyimide, and polyolefin.

48. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a copolymer of at least two of a poly epoxide, a polyacrylate, polyimide, and polyolefin.

49. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a mixture of a poly epoxide and a polyimide.

50. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material comprises a copolymer of a poly epoxide and a polyimide.

51. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material has a Shore A hardness of greater than about 70.

52. (Original) The integrated circuit package of claim 35, wherein the rigid die attach material has a Shore D hardness of greater than about 20.

53. - 107. (Canceled)

108. (Previously Presented) An integrated circuit package comprising:

a ceramic substrate;

a die; and

a material having a Young's modulus of between about .1 megapascals and less than 3 megapascals, at a solder reflow temperature, attaching the die to the substrate.

109. (Original) The integrated circuit package of claim 108, wherein the ceramic substrate comprises a multi-metal layer ceramic substrate.

110. (Original) The integrated circuit package of claim 108, wherein the die comprises a communication circuit fabricated on a semiconductor.

111. (Original) The integrated circuit package of claim 108, wherein the die comprises one or more memory circuits.

112. (Original) The integrated circuit package of claim 108, wherein the die comprises one or more processor circuits.

113. (Original) The integrated circuit package of claim 108, wherein the die comprises one or more logic circuits.

114. (Original) The integrated circuit package of claim 108, wherein the die comprises one or more application specific integrated circuits.

115. (Original) The integrated circuit package of claim 108, wherein the material comprises one or more epoxides, poly epoxides, copolymers of epoxides, or mixtures thereof.

116. (Original) The integrated circuit package of claim 108, wherein the material comprises a poly epoxide formed from one epoxide.

117. (Original) The integrated circuit package of claim 108, wherein the material comprises a poly epoxide formed from two or more epoxides.

118. (Original) The integrated circuit package of claim 108, wherein the material comprises a polyacrylate.

119. (Original) The integrated circuit package of claim 108, wherein the material comprises a polyolefin.

120. (Original) The integrated circuit package of claim 108, wherein the material comprises a polyimide.

121. (Original) The integrated circuit package of claim 108, wherein the material comprises a mixture of at least two of a poly epoxide, polyacrylate, polyimide, and polyolefin.

122. (Original) The integrated circuit package of claim 108, wherein the material comprises a copolymer of at least two of a poly epoxide, a polyacrylate, polyimide, and polyolefin.

123. (Original) The integrated circuit package of claim 108, wherein the material comprises a mixture of a poly epoxide and a polyimide.

124. (Original) The integrated circuit package of claim 108, wherein the material comprises a copolymer of a poly epoxide and a polyimide.

125. (Original) The integrated circuit package of claim 108, wherein the material has a Shore A hardness of greater than about 70.

126. (Original) The integrated circuit package of claim 108, wherein the material has a Shore D hardness of greater than about 20.

127. - 135. (Canceled)

136. (Original) An integrated circuit package comprising:

a ceramic substrate;

a die; and

a rigid die attach material attaching the die to the substrate.

137. (Original) The integrated circuit package of claim 136, wherein the ceramic substrate comprises a multilayered ceramic substrate.

138. (Original) The integrated circuit package of claim 136, wherein the die comprises germanium.

139. (Original) The integrated circuit package of claim 136, wherein the die comprises one or more memory circuits.

140. (Original) The integrated circuit package of claim 136, wherein the die comprises one or more processor circuits.

141. (Original) The integrated circuit package of claim 136, wherein the die comprises one or more logic circuits.

142. (Original) The integrated circuit package of claim 136, wherein the die comprises one or more application specific integrated circuits.

143. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises one or more epoxides, poly epoxides, copolymers of epoxides, or mixtures thereof.

144. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a poly epoxide formed from one epoxide.

145. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a poly epoxide formed from two or more epoxides.

146. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a polyacrylate.

147. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a polyolefin.

148. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a polyimide.

149. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a mixture of at least two of a poly epoxide, polyacrylate, polyimide, and polyolefin.

150. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a copolymer of at least two of a poly epoxide, a polyacrylate, polyimide, and polyolefin.

151. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a mixture of a poly epoxide and a polyimide.

152. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material comprises a copolymer of a poly epoxide and a polyimide.

153. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material has a Shore A hardness of greater than about 70.

154. (Original) The integrated circuit package of claim 136, wherein the rigid die attach material has a Shore D hardness of greater than about 20.

155. - 251. (Canceled)

252. (Previously Presented) An integrated circuit package comprising:

a substrate;

a die; and

a material having a coefficient of thermal expansion α_2 of between about one and about sixty-two ppm/°C attaching the die to the substrate, wherein the material has a Young's modulus of between .1 megapascals and less than 3 megapascals, at a solder reflow temperature.

253. (Previously Presented) The integrated circuit package of claim 252, wherein the substrate comprises a single metal layer glass-epoxide.

254. (Previously Presented) The integrated circuit package of claim 252, wherein the die comprises one or more processor circuits.

255. (Previously Presented) The integrated circuit package of claim 252 wherein the die comprises one or more memory circuits.

256. (Previously Presented) The integrated circuit package of claim 252, wherein the die comprises one or more logic circuits.

257. (Previously Presented) The integrated circuit package of claim 252, wherein the die comprises one or more application specific integrated circuits.

258. (Previously Presented) The integrated circuit package of claim 252, wherein the material comprises a poly epoxide formed from one epoxide.

259. (Previously Presented) The integrated circuit package of claim 252, wherein the material comprises a poly epoxide formed from two or more epoxides.

260. (Previously Presented) The integrated circuit package of claim 252, wherein the material comprises a polyacrylate.

261. (Previously Presented) An integrated circuit package comprising:

a substrate;

a die; and

a material having a coefficient of thermal expansion α_2 of between about 151 (one-hundred and fifty-one) and about 400 (four-hundred)] ppm/°C attaching the die to the substrate, wherein the material has a Young's modulus of between .1 megapascals and less than 3 megapascals, at a solder reflow temperature.

262. (Previously Presented) The integrated circuit package of claim 261, wherein the material comprises a polyolefin.

263. (Previously Presented) The integrated circuit package of claim 261, wherein the material comprises a polyimide.

264. (Previously Presented) The integrated circuit package of claim 261, wherein the material comprises a mixture of at least two of a poly epoxide, polyacrylate, polyimide, and polyolefin.

265. (Previously Presented) The integrated circuit package of claim 261, wherein the material comprises a copolymer of at least two of a poly epoxide, a polyacrylate, polyimide, and polyolefin.

266. (Previously Presented) The integrated circuit package of claim 261, wherein the material comprises a mixture of a poly epoxide and a polyimide.

267. (Previously Presented) The integrated circuit package of claim 261, wherein the material comprises a copolymer of a poly epoxide and a polyimide.

268. (Previously Presented) The integrated circuit package of claim 261, wherein the material has a Shore A hardness of greater than about 70.

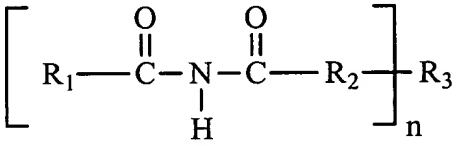
269. (Previously Presented) The integrated circuit package of claim 261, wherein the material has a Shore D hardness of greater than about 20.

270. (Previously Presented) An integrated circuit package comprising:

a substrate;

a die; and

a polyimide material having a Young's modulus of between 0.1 megapascals and about 20 megapascals, at a solder reflow temperature, to attaching the die to the substrate, wherein the polyimide material is a compound of the formula:



wherein

n is 2 to about 1,000;

each R_1, R_2, and R_3 is independently $(C_1\text{-}C_{24})$alkyl, $(C_2\text{-}C_{24})$alkenyl, $(C_1\text{-}C_{24})$alkyl, $(C_3\text{-}C_8)$cycloalkyl, $(C_1\text{-}C_{24})$alkyl $(C_3\text{-}C_8)$cycloalkyl, $(C_6\text{-}C_{10})$aryl, $(C_6\text{-}C_{10})$heteroaryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$aryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$heteroaryl, $(C_6\text{-}C_{10})$aryl $(C_1\text{-}C_{24})$alkyl, $(C_6\text{-}C_{10})$heteroaryl $(C_1\text{-}C_{24})$alkyl, or $(C_3\text{-}C_8)$cycloalkyl $(C_1\text{-}C_{24})$alkyl;

any alkyl, alkenyl, alkynyl, cycloalkyl, aryl, or heteroaryl can optionally be substituted with one or more halo, trifluoromethyl, cyano, hydroxy, nitro, $C(=O)OR_6$, wherein R_6 is hydrogen or $(C_1\text{-}C_{24})$alkyl, or NR_7R_8, wherein each R_7 and R_8 are independently hydrogen or $(C_1\text{-}C_{24})$alkyl; and

any alkyl, alkenyl, or alkynyl is optionally interrupted with one or more oxo, thio, sulfonyl, or sulfinyl;

or a suitable salt thereof.

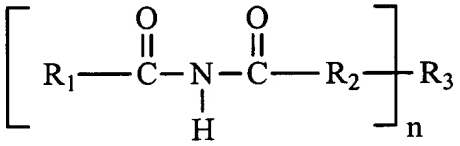
271. (Previously Presented) The integrated circuit package of claim 270, wherein n is in a range of two to 1000.

272. (Currently Amended) An integrated circuit package comprising:

a substrate;

a die; and

a polyimide material having a Young's modulus of between 0.1 megapascals and about 20 megapascals, at a solder reflow temperature, to attaching the die to the substrate, wherein the polyimide material is a compound of the formula:



, wherein R_1 is $(C_1\text{-}C_{24})$alkenyl, and wherein each R_2 and R_3 is independently $(C_1\text{-}C_{24})$alkyl, $(C_2\text{-}C_{24})$alkenyl, $(C_1\text{-}C_{24})$alkyl, $(C_3\text{-}C_8)$cycloalkyl, $(C_1\text{-}C_{24})$alkyl $(C_3\text{-}C_8)$cycloalkyl, $(C_6\text{-}C_{10})$aryl, $(C_6\text{-}C_{10})$heteroaryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$aryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$heteroaryl, $(C_6\text{-}C_{10})$aryl $(C_1\text{-}C_{24})$alkyl, $(C_6\text{-}C_{10})$heteroaryl $(C_1\text{-}C_{24})$alkyl, or $(C_3\text{-}C_8)$cycloalkyl $(C_1\text{-}C_{24})$alkyl;

any alkyl, alkenyl, alkynyl, cycloalkyl, aryl, or heteroaryl can optionally be substituted with one or more halo, trifluoromethyl, cyano, hydroxy, nitro, $C(=O)OR_6$, wherein R_6 is hydrogen or $(C_1\text{-}C_{24})$alkyl, or NR_7R_8, wherein each R_7 and R_8 are independently hydrogen or $(C_1\text{-}C_{24})$alkyl; and

any alkyl, alkenyl, or alkynyl is optionally interrupted with one or more oxo, thio, sulfonyl, or sulfinyl;

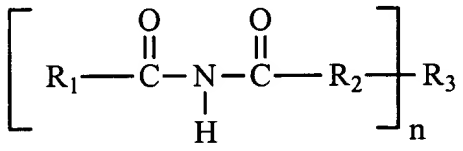
or a suitable salt thereof.

273. (Currently Amended) An integrated circuit package comprising:

a substrate;

a die; and

a polyimide material having a Young's modulus of between 0.1 megapascals and about 20 megapascals, at a solder reflow temperature, to attaching the die to the substrate, wherein the polyimide material is a compound of the formula:



, wherein R_2 is $(C_2\text{-}C_{24})$alkenyl, and wherein each R_1 and R_3 is independently $(C_1\text{-}C_{24})$alkyl, $(C_2\text{-}C_{24})$alkenyl, $(C_1\text{-}C_{24})$alkyl, $(C_3\text{-}C_8)$cycloalkyl, $(C_1\text{-}C_{24})$alkyl $(C_3\text{-}C_8)$cycloalkyl, $(C_6\text{-}C_{10})$aryl, $(C_6\text{-}C_{10})$heteroaryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$aryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$heteroaryl, $(C_6\text{-}C_{10})$aryl $(C_1\text{-}C_{24})$alkyl, $(C_6\text{-}C_{10})$heteroaryl $(C_1\text{-}C_{24})$alkyl, or $(C_3\text{-}C_8)$cycloalkyl $(C_1\text{-}C_{24})$alkyl;

any alkyl, alkenyl, alkynyl, cycloalkyl, aryl, or heteroaryl can optionally be substituted with one or more halo, trifluoromethyl, cyano, hydroxy, nitro, $C(=O)OR_6$, wherein R_6 is hydrogen or $(C_1\text{-}C_{24})$alkyl, or NR_7R_8, wherein each R_7 and R_8 are independently hydrogen or $(C_1\text{-}C_{24})$alkyl; and

any alkyl, alkenyl, or alkynyl is optionally interrupted with one or more oxo, thio, sulfonyl, or sulfinyl;

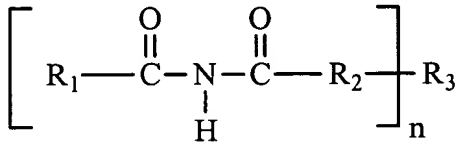
or a suitable salt thereof.

274. (Currently Amended) An integrated circuit package comprising:

a substrate;

a die; and

a polyimide material having a Young's modulus of between 0.1 megapascals and about 20 megapascals, at a solder reflow temperature, to attaching the die to the substrate, wherein the polyimide material is a compound of the formula:



, wherein R_3 is $(C_2\text{-}C_{24})$alkenyl, and wherein each R_1 and R_2 is independently $(C_1\text{-}C_{24})$alkyl, $(C_2\text{-}C_{24})$alkenyl, $(C_1\text{-}C_{24})$alkyl, $(C_3\text{-}C_8)$cycloalkyl, $(C_1\text{-}C_{24})$alkyl $(C_3\text{-}C_8)$cycloalkyl, $(C_6\text{-}C_{10})$aryl, $(C_6\text{-}C_{10})$heteroaryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$aryl, $(C_1\text{-}C_{24})$alkyl $(C_6\text{-}C_{10})$heteroaryl, $(C_6\text{-}C_{10})$aryl $(C_1\text{-}C_{24})$alkyl, $(C_6\text{-}C_{10})$heteroaryl $(C_1\text{-}C_{24})$alkyl, or $(C_3\text{-}C_8)$cycloalkyl $(C_1\text{-}C_{24})$alkyl;

any alkyl, alkenyl, alkynyl, cycloalkyl, aryl, or heteroaryl can optionally be substituted with one or more halo, trifluoromethyl, cyano, hydroxy, nitro, $C(=O)OR_6$, wherein R_6 is hydrogen or $(C_1\text{-}C_{24})$alkyl, or NR_7R_8, wherein each R_7 and R_8 are independently hydrogen or $(C_1\text{-}C_{24})$alkyl; and

any alkyl, alkenyl, or alkynyl is optionally interrupted with one or more oxo, thio, sulfonyl, or sulfinyl;

or a suitable salt thereof.

275. (Previously Presented) The integrated circuit package of claim 270, wherein the substrate comprises a ceramic.

276. (Previously Presented) The integrated circuit package of claim 270, wherein the die comprises one or more memory circuits.